

Patent Claims:

1. An organic light emitting device (1), in particular an OLED, comprising at least
5 a first substrate (12),
an organic light emitting layer arrangement (20), which comprises a first and second electrode (22, 26) and an organic electroluminescent layer (24), and an encapsulation (14, 28), by means of which the light emitting layer
10 arrangement (20) is encapsulated, the first substrate, the light emitting layer arrangement and the encapsulation forming a light emitting composite element (10),
characterized by
a functional layer (34) applied on the light emitting
15 composite element (10).
2. The device (1) as claimed in claim 1,
wherein
the functional layer (34) is formed as an antishatter
20 protective layer, and at least the first substrate (12) and
the antishatter protective layer (34) form a composite element (30).
3. The device (1) as claimed in one of the preceding
25 claims,
wherein
the encapsulation (14, 28) comprises an adhesively bonded-on second substrate (14).
- 30 4. The device (1) as claimed in one of the preceding claims,
wherein
a third substrate (38) is applied on the functional layer

(34), so that the functional layer (34) is arranged between the first and third substrates (12, 38), and at least the first and third substrates (12, 38) and the antishatter protective layer (34) form a composite element (30).

5

5. The device (1) as claimed in one of the preceding claims,

wherein

the functional layer (34) comprises first and second sections
10 (46, 44), the first sections (46) essentially being light-transmissive and the second sections (44) essentially light-opaque.

6. The device (1) as claimed in one of the preceding
15 claims,

wherein

the functional layer (34) is formed as a multicolor patterned mask.

20 7. The device (1) as claimed in one of the preceding claims,

wherein

the functional layer (34) comprises a plastic layer.

25 8. The device (1) as claimed in one of the preceding claims,

wherein

the functional layer (34) comprises a plastic film.

30 9. The device (1) as claimed in one of the preceding claims,

wherein

the functional layer (34) is adhesively bonded on.

10. The device (1) as claimed in one of the preceding claims,

wherein

5 the functional layer (34) comprises a self-adhesive film.

11. The device (1) as claimed in one of the preceding claims,

wherein

10 the first and third substrates (12, 38) and the antishatter protective layer (34) are adhesively bonded in areal fashion to form a composite element (30).

12. The device (1) as claimed in one of the preceding claims,

15

wherein

the functional layer (34) is adhesively bonded on by means of a crosslinking adhesive (32).

13. The device (1) as claimed in one of the preceding claims,

20

wherein

the functional layer (34) comprises a printed-on layer.

14. The device (1) as claimed in one of the preceding claims,

25

wherein

the first, second and/or third substrate (12, 14, 38) comprise a glass substrate.

30

15. The device (1) as claimed in one of the preceding claims,

wherein

the first, second and/or third substrate (12, 14, 38) comprise hardened glass.

16. The device (1) as claimed in one of the preceding
5 claims,
wherein
the first, second and/or third substrate (12, 14, 38)
comprise a glass-plastic composite.

10 17. The device (1) as claimed in one of the preceding
claims,
wherein
the first, second and/or third substrate (12, 14, 38)
comprise a plastic-coated glass or a laminated glass-plastic
15 composite.

18. The device (1) as claimed in one of the preceding
claims,
wherein
20 the third substrate (38) is provided with an antireflection
coating (48).

19. The device (1) as claimed in one of the preceding
claims,
25 wherein
the end sides (6, 8) of the first, second and/or third
substrate (12, 14, 38) and/or of the functional layer (34)
are postprocessed after adhesive bonding.

30 20. The device (1) as claimed in one of the preceding
claims,
wherein
at least one end side (6, 8) of the organic light emitting

device (1) is beveled.

21. The device (1) as claimed in one of the preceding claims,

5 wherein

the first, second and/or third substrate (12, 14, 38) have a thickness of 10 μm to 2000 μm .

22. The device (1) as claimed in one of the preceding claims,

10

wherein

the first and second substrate (12, 14) are adhesively bonded to one another by means of a first adhesive layer (28),

the first substrate (12) and the functional layer (34) are

15 adhesively bonded to one another by means of a second adhesive layer (32), and

the functional layer (34) and the third substrate (38) are adhesively bonded to one another by means of a third adhesive layer (36).

20

23. The device (1) as claimed in claim 22,

wherein

the first, second and third adhesive layers (28, 32, 36) each have a thickness of 3 μm to 100 μm .

25

24. The device (1) as claimed in one of the preceding claims,

wherein

it has a thickness of 150 μm to 10 mm.

30

25. The device (1) as claimed in one of the preceding claims,

wherein

it comprises an energy source (54) and a switch (58) for switching the organic light emitting device (1) on and off.

26. The device (1) as claimed in one of the preceding
5 claims,
wherein
the second substrate (14) defines a rear side (4) of the
organic light emitting device, and a dielectric housing (52)
is fitted to the rear side (4), in which housing is arranged
10 an energy source (54).

27. The device (1) as claimed in one of the preceding
claims,
characterized by a holding clip (58).

15 28. The device (1) as claimed in claim 27,
wherein
the holding clip (58) interacts with the switch (56) in such
a way that the switch (56) is actuated by the holding clip
20 (58).

29. The device (1) as claimed in claim 27 or 28,
wherein
the switch (56) is integrated in the holding clip (58).

25 30. The use of the organic light emitting device (1) as
claimed in one of the preceding claims as a self-luminous, in
particular patterned information sign or as a self-luminous,
in particular patterned information area.

30 31. A method for producing an organic light emitting device
(1) in particular as claimed in one of the preceding claims,
an organic light emitting composite element (10) being

provided, which comprises at least a first substrate (12),
an encapsulation (14, 28) and an organic light emitting layer
arrangement (20), the organic light emitting layer
arrangement (20) being encapsulated by means of the first
5 substrate (12) and the encapsulation (14, 28) and comprising
at least a first and second electrode (22, 26) and an organic
electroluminescent layer (24), wherein
a functional layer (34) is applied to the organic light
emitting device (1).

10

32. The method as claimed in claim 31,
wherein
during operation, at a front side, light (42) emerges from
the organic light emitting device (1) and the functional
15 layer (34) is applied to the front side of the organic light
emitting device (1).

33. The method as claimed in claim 31 or 32,
wherein
20 a third substrate (38) is applied to the functional layer
(34).